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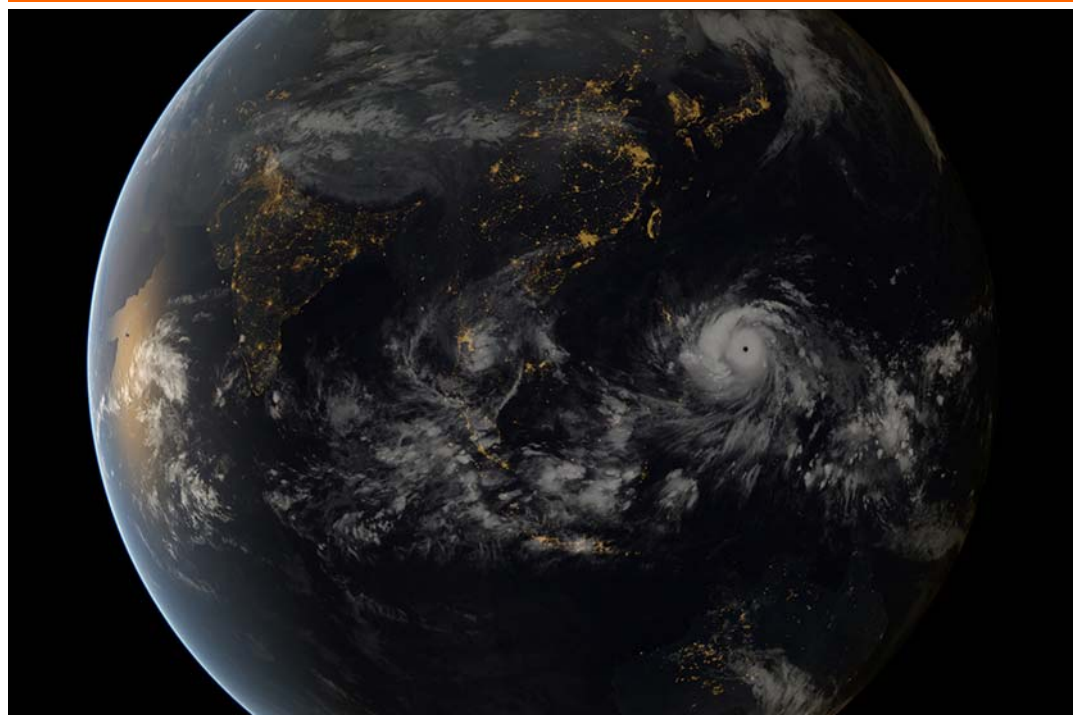
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Weather satellite picture of Typhoon Haiyan just before it struck the Philippines (EUMETSAT)

'SUPER TYPHOON' STRIKES PHILIPPINES

On 12th November Benigno Aquino, the president of the Philippines, declared a state of national **calamity**. His announcement came three days after a 'super typhoon' struck part of the country. President Aquino said that millions of people, who had been affected by the storm, needed help. In some places, the destruction was so great that only a few buildings remain standing.

Typhoons are very powerful tropical storms that occur in the western Pacific Ocean. They bring strong winds, very heavy rainfall and can affect large areas. Similar storms in the Atlantic and eastern Pacific Ocean are known as hurricanes. In the Indian Ocean these types of storms are called cyclones.

Soon after these tropical storms first form they are given a name. The official name of the storm that struck the Philippines on 8th November was Typhoon

Haiyan. However, in the Philippines it was called Yolanda.

The Philippines is an archipelago, or group, of around 7,000 islands. It has two main, or larger, islands: Luzon in the north and Mindanao in the south. There are many small islands in between. This is where the typhoon struck. It is not unusual for as many as 20 typhoons to hit the Philippines each year.

Similar to hurricanes there are five categories of typhoons and cyclones. These depend on the storm's wind speeds. Category 1 is the least powerful and 5 the most. Weather experts often give two wind speeds for these storms. One is 'sustained' and the other 'gusts'. Sustained winds are those that constantly blow for at least ten minutes. Gusts last for about 60 seconds.

Just before Typhoon Haiyan struck the Philippine island of Leyte, the storm's

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wind speeds were recorded. Its sustained winds were blowing at 235 kilometres (145 miles) per hour. The gusts were as high as 315 kilometres (195 miles) per hour. This meant that it was a Category 5, or super, typhoon. It's believed to be one of the most powerful storms ever recorded to hit land, or make landfall.

Once typhoons make landfall they gradually weaken. However, those that strike the Philippines sometimes pick up strength again. This happens after they cross the country and reach the South China Sea. Then, it is not unusual for them to strike southern China or Vietnam. This is what Typhoon Haiyan did. Three days after crossing the Philippines the storm made landfall near to the border between China and northern Vietnam. Yet, by this time it had weakened to a Category 1 storm.

Weather experts correctly predicted that Typhoon Haiyan would strike the Philippines between Luzon and Mindanao. Four days before the storm arrived government officials issued a warning. People living on the islands of Leyte and Samar, and four other central islands, were told to leave their homes. Around 700,000 did so. They either moved to higher ground or to evacuation centres. These are churches, schools and larger government buildings.

One of the places worst affected was Tacloban. This is the biggest city on Leyte. It is home to about 250,000 people. Tacloban is on the coast. As well as the wind and rain it was hit by what's known as a storm surge. When typhoons make landfall they can create storm surges. These are huge waves of water that are pushed inland by their powerful winds.

The storm surge that hit Tacloban was about five metres (45 feet) high. Many people who had decided to

shelter in their homes were unable to escape from the huge waves. Most of the city's buildings were destroyed. Boats and two large ships were swept inland.

In the surrounding villages and towns only a few buildings are still standing. The winds blew down hundreds of thousands of trees. Cars were overturned and roads blocked by fallen power lines and piles of debris. The typhoon brought huge amounts of rain. This caused serious flooding and many landslides.



In the days following the typhoon the government sent soldiers, extra police and medical teams to the worst affected areas. The local hospitals have all been destroyed. There is little food and clean drinking water, and no electricity. Many now worry about the spread of disease. Some of those who died have been buried in mass graves. Yet many bodies remain trapped under piles of debris.

Nobody knows how many people were killed. Four days after the storm, government officials said it was about 2,000. However, most think the final number, which may not be known for many weeks, will be much higher. Some believe over 10,000 people died.

The United Nations (UN) estimates that 11 million people have

been affected by the typhoon. It says around 673,000 have lost their homes. Furthermore, tens of thousands of farms have been badly damaged. Thousands of square kilometres of rice crops were ruined. Large coconut and banana plantations have been destroyed.

Many other countries have offered to help. Both Philippine and American military planes began flying supplies of food, water and medicines to the airport at Tacloban. American navy ships and helicopters arrived on 14th November.

Countries, such as Australia, Japan and South Korea, have sent medical teams as well as money. Items being sent include water [purification](#) kits, tents, blankets, food, and medical equipment. Indonesia has supplied military planes, helicopters and electricity generators. As well as money and emergency shelters the UK has also sent a navy ship.

The UN has launched an emergency appeal. It wants to raise US\$300 million (£186 million). This money will be used to help those who now have nowhere to live.

Some people have criticised President Aquino and his government. They said that the rescue operations have been badly managed. Aid, they claim, took far too long to reach the many people who lost their homes. However, others disagree. They say that because of the size of the typhoon, and the problems reaching so many different islands, organising the distribution of aid was very difficult.

Some scientists suspect that climate change may be increasing the frequency and strength of these powerful storms. President Aquino is sure that this is true. In the days following the calamity he said that his country would need to prepare for more super typhoons in the future. ■

THIRD PLENARY MEETING IN CHINA

An important meeting took place in China between 9th and 12th November. Xi Jinping, the country's president, and all the members of China's Central Committee attended it.

The meeting was held in private. It took place in a large hotel in Beijing, China's capital city. The 376 people who took part are senior members of the Communist Party. All stayed in the hotel during the four days. Members of the public were not allowed to enter the building.

Mao Zedong became the leader of the Chinese Communist Party in 1945. As its leader, Chairman Mao (as he was known) ruled China for nearly 30 years. After he died in 1977 the Communist Party organised the way by which future leaders of China would be selected.



Xi Jinping, president of China

Mr Xi officially became China's new president last March. He took over from Hu Jintao. Other senior members of the Communist Party also took up their new positions at the same time. In China the president is appointed for a ten-year term. Mr Xi will therefore be China's leader until 2023.

The Communist Party is the only political party in China. No other parties are allowed. Senior members of the Communist Party choose the

country's leaders. Therefore, unlike in many other countries, China's leaders are not democratically elected.

The meeting in Beijing was officially called the Third Plenary Session of the 18th Central Committee. This is the third time that the Central Committee has met since Mr Xi became president. Many people say that this third meeting is very important. This is because it is when the country's economy is discussed. So, traditionally, the Third Plenary Session is when the new leadership decides on its economic plans for the next five or ten years.

In 1978 Deng Xiaoping was China's president. It was at the Third Plenary Session in 1978 that Deng made a very important decision. He decided to abandon Chairman Mao's plans and run the economy in a different way. This was the start of China 'opening up to the rest of the world' and it becoming an economic 'superpower'.

Today many people describe China as being the 'factory of the world'. The country now has the world's second largest economy. The biggest is the USA. However, many people believe that China will overtake the USA within the next few years.

In China the Communist Party runs most of the larger companies and banks. No one can own or buy and sell land. It all belongs to the government. Farmers lease or rent the land they use. Some people predict that the Third Plenary Session will make changes to government-run companies. It may also introduce some type of land ownership.

Currently most things made in China are exported to other countries. Some say that the country's leaders now need to develop China's own domestic market. They also believe that more competition

NewsCAST

DESK DISCOVERY — A man in the USA recently bought a second hand desk. It had been advertised on an internet site for US\$200 (£125). When it arrived he discovered that the desk was too big to go through his office doorway. To get it through the door he and his wife took it apart. When they did this they found a plastic bag behind one of the filing cabinets. It was full of US\$100 banknotes. Counting the money they were surprised to discover that the bag contained US\$98,000 (£61,300). The couple contacted the website to find out who the owner was. It had belonged to an elderly lady. They telephoned her to explain what they had found and arranged to return the money. The elderly lady explained that she had inherited the money sometime ago but had forgotten where she put it.

between companies in China should be allowed.

Normally no major announcements are made at the end of Third Plenary Sessions. Government-run newspapers report on the decisions that have been made. However, these reports are not usually written until several weeks later. ■

DESERT FARMING

A 'desert farm' project in Qatar has just managed to grow a similar amount of vegetables as a farm in Europe. Surprisingly, it managed to do this by only using seawater and sunlight.

The desert farm is a pilot or test site. It has been set up by an organisation called the Sahara Forest

Project (SFP). The SFP is experimenting in how people can use what the world has enough of, to make the things that they need. It is working out ways to produce fresh water, food, energy and vegetation using desert areas, carbon dioxide, salt water and sunlight.



Sahara Forest Project test site in Qatar (SFP)

The SFP set up its pilot site, or facility, in Qatar about 12 months ago. The facility has a greenhouse with a growing area of around 600 square metres (6,460 square feet). At one end of the greenhouse is something that looks a bit like a curtain. Above the curtain is a pipe that has seawater flowing through it. The pipe has holes in it. So small amounts of seawater trickle, or run, down the curtain.

The desert wind blows through the curtain. It creates moist air for the plants growing inside the greenhouse. There are a number of larger pipes at the other end of the greenhouse. These contain colder seawater. Some of the moisture in the air inside the greenhouse then condenses on the cold pipes. This condensation (which is fresh water) can then be used to water the plants.

The site also produces its own electricity. Specially shaped mirrors shine sunlight onto pipes that contain a fluid. This heated fluid boils water that creates steam. The steam then turns a turbine, which makes electricity. The electricity runs the plant's pumps and control systems.

It can also be used to power a desalination unit. This turns salt water into fresh water.

Inside the greenhouse, three crops of different vegetables were grown in one year. In total, over the 12 months, about 75 kilograms (165 pounds) of vegetables were harvested from one square metre (11 square feet). The vegetables included cucumbers, tomatoes and peppers.

The people running the pilot project were amazed to see that plants began to grow around the outside of the greenhouse. The plants could do this because some of the cool, moist air was leaking out. Those in charge planted barley and a type of lettuce in these areas. Both seemed to grow well.

The SFP is now building a larger growing facility. This one, which is in Jordan, will be about 20 times bigger. The SFP believes that in future these types of farms will be set up in many countries that have large desert areas. ■

TEMPLE RULING

The International Court of Justice (ICJ) gave its verdict on land that is close to the Preah Vihear temple. It declared that the 4.6 square kilometre (two square mile) area of land belongs to Cambodia and not Thailand. The Thai government, the court said, must now withdraw any soldiers or police officers from the land near the temple.

The ICJ is sometimes called the World Court. It is the most senior court within the United Nations (UN). The ICJ is based in The Hague, a city in the Netherlands. Its job is to settle legal arguments among member countries of the UN.

Today the Preah Vihear temple is a ruin. Historians believe it was built during the 11th and 12th centuries. Thailand and Cambodia have been arguing for nearly 100 years over which country the temple is in.

In 1962 both countries took the case to the ICJ. It ruled that the temple was in Cambodia. Members of the court studied old maps and records. These had been made many years ago. Then Cambodia was part of a colony of France that was known as Indochina. It included Cambodia, Laos and Vietnam. At that time Thailand was called Siam.

Many people in Thailand insisted that the court's ruling was wrong. They said the temple was very difficult to get to from Cambodia. This is because on the Cambodian side there is a steep cliff. The only easy access, they argued, was from Thailand. In 2003 Cambodia built a road from the nearest town, through the jungle, to the temple. However, the ICJ only ruled on the temple. It did not say who owned the surrounding land.



Preah Vihear temple

In 2008 Cambodia applied for the temple to be a World Heritage Site. These are sites chosen and supported by a part of the UN. It supplies money to help look after and protect World Heritage Sites. The prime minister of Thailand at the time wanted it to be a joint request to the UN. However, after a delay, he agreed to support Cambodia's application.

Trouble started when the UN announced that Cambodia's World Heritage application had been successful. The news led to demonstrations in Bangkok, the capital of Thailand. The protesters were angry, as they believed the UN had sided with Cambodia in the argument over which country the temple was in. Soon afterwards both countries began to send troops to this part of their border.



Since 2009 there have been several shooting incidents near the temple. One at the beginning of 2011 lasted for four days. Twenty-eight people were killed. Hun Sen, the prime minister of Cambodia, asked the UN to intervene. Yet the shooting incidents continued.

Eventually, both sides agreed to withdraw their troops from the area. The prime minister of Cambodia then asked the ICJ to make a ruling on the surrounding land. After the court's decision was announced Yingluck Shinawatra, the Thai prime minister, said that everyone in Thailand should accept the ICJ's ruling. ■

GARDEN BRIDGE

Plans have been made for a new bridge to be built in London, the capital of the UK. The bridge will cross the River Thames. However, it will not be built for cars or trains.

Instead it will be like 'a long garden'. People will be able to walk through the garden to get from one side of the river to the other.

Like other big cities that have been built on rivers, London has many bridges. Yet there are only a few crossing points just for pedestrians. The new Garden Bridge will be in the centre of the city. It will be 367 metres (1,200 feet) long.

The sides of the bridge will not be straight. They will be curved in several places. These parts of the bridge will be wider. At its widest point it will be around 30 metres (100 feet) across. The edges will be 'jagged'. This is so people will have better views of London's buildings on both sides of the river. There will also be many seats or park benches where people can sit and relax.

The garden or park will have areas of grass, wild flowers and trees. The plants and trees will be specially selected so that their colours change with the season. Some fruit trees will also be planted. The designers say that soon after it is completed the bridge will become home to many birds and insects.



Artist's impression of the Garden Bridge (Arup)

Several paths will run through the park. The bridge will hold at least 1,000 tonnes of soil. Its two large bridge supports, or piers, will be hollow and filled with earth. The piers will therefore be similar to giant plant pots in which the roots of the larger trees can grow.

Unlike some other big cities London has many large parks. However, most people think that the Garden Bridge is a good idea. The building and planting work is expected to cost about £150 million (£179 million). The planners hope that it will be completed by 2017.

Some people say that the Garden Bridge will be like New York City's High Line. This is a former railway. It goes through part of the city, above the level of the streets. The High Line was built in the 1930s. Trains stopped using it about 30 years ago. Some of the railway line has been knocked down. However, in recent years one section, which is about 1.6 kilometres (one mile) in length, has been turned into a long, narrow park. ■

TUTANKHAMUN'S NEW TOMB

Officials in Egypt say they plan to open a replica, or copy, of Tutankhamun's tomb in November. Work started on the copy about four years ago. Officials say the replica is needed as the original tomb and its wall paintings are being damaged.

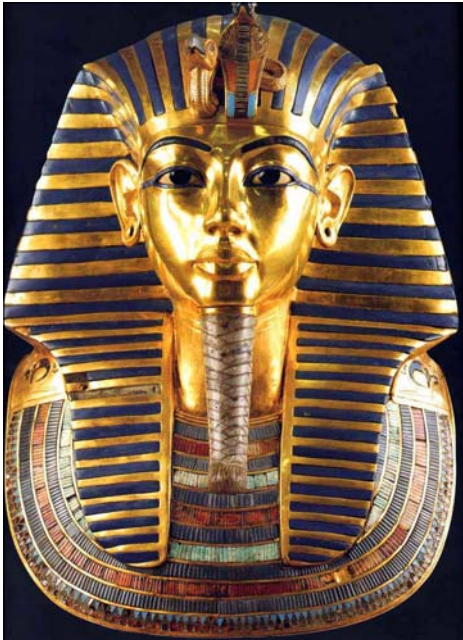
Howard Carter (1874 – 1939), a British archaeologist, discovered Tutankhamun's tomb in 1922. He had been paid to do archaeological exploration in Egypt's Valley of the Kings by a wealthy British man, Lord Carnarvon.

The Valley of the Kings is close to the River Nile. It was the burial place for many ancient pharaohs and important families. However, nearly all the tombs in the valley were broken into hundreds, or even thousands, of years ago. The people who break into tombs to steal what is inside are called grave robbers.

Historians say an Egyptian man, who worked for Carter, first noticed the entrance to the tomb. The man's job was to carry water for Carter and the other archaeologists working in the Valley of the Kings.

Tutankhamun is also known as King Tut. He became king, or pharaoh, of Egypt when he was only around eight years old. He died in BCE 1324, at the age of 19.

Mystery has always surrounded Tutankhamun's death. Three-dimensional (3D) scans of his mummy showed a hole in the back of his skull. Some historians believe this is evidence that he was murdered. Others think he died of malaria. A recent study found that he had many injuries on the left side of his body. These include a broken [pelvis](#) and several broken ribs. Some believe these injuries show that he died after being hit by the wheel of a speeding chariot.



Tutankhamun's funeral mask

Even though Tutankhamun was not one of Egypt's most powerful or long-lived pharaohs, he is probably the most famous. This is because grave robbers never found his tomb. So when Carter opened it, the tomb

still contained thousands of valuable items, or artefacts. Inside Tutankhamun's sarcophagus, or stone coffin, was a mask made of gold. Tutankhamun's funeral mask has now become a symbol of ancient Egypt.



Wall paintings in Tutankhamun's tomb

The tomb has four rooms. All were cut out of the rock. However, only the walls in one room were decorated with paintings. This was the room that contained the pharaoh's sarcophagus.

The tomb was sealed, or closed, for over 3,300 years. When it was opened the humidity and air inside it changed. What's more thousands of visitors, over many years, have brought dust and fungi into the tomb. Changes in the air have caused the plaster on the walls to crumble and paint to peel away.

While working in the Valley of the Kings, Carter lived in a large mud-brick house. His house, which is now a museum, is about 800 metres (0.5 miles) from the Valley of the Kings. The replica tomb has been built close to the house. It is exactly the same size and shape as the original tomb. The wall paintings have been copied.

After the new tomb opens visitors will have a choice. They can either visit the real or replica tomb. However, in future, to stop further damage, the original tomb will probably have to be closed to all visitors. ■

PRICE CONTROLS IN VENEZUELA

Thousands of people in Venezuela have been queuing outside electrical shops. They are hoping to buy items for much lower prices. This is because the country's president, Nicolas Maduro, has ordered the shops to reduce the amounts they charge. Many items, such as televisions, cameras and washing machines, are now being sold at less than half price.

Mr Maduro accuses the shop owners of deliberately increasing their prices to make lots of money. Some electrical store owners have been arrested. On 9th November soldiers were sent to several electrical shops to control the crowds.

Two days later, speaking on live television, Mr Maduro declared that other stores would be forced to lower their prices if they are making too much money. These, he said, included shops that sell food, clothing, shoes, toys, and cars. If a government decides to set prices in this way it is known as 'price controls'.

Venezuela is very dependent on oil. It has the largest proven, or known, oil supplies in the world. Of Venezuela's total economy around 95% of the money it makes comes from oil. Yet the country has many economic problems. [Inflation](#) in Venezuela is now at 54%. This is one of the highest inflation rates anywhere in the world. Inflation is when a currency loses value and the cost of things increase. Governments that keep printing more and more banknotes usually cause it. The more banknotes there are in a country the less they are worth.

The previous president, Hugo Chávez, ran Venezuela for many years. He died of cancer last March. Before his death Chávez said he wanted Mr Maduro to be his

successor. Chávez often described the way in which he ran the country as a 'socialist revolution'. He arranged for the government to take control of the oil, electricity and large food companies. He said most of the money that these businesses made should be used to help less wealthy people.

Chávez's critics argue that he ruined Venezuela's economy. They claim that government-run companies are badly managed and inefficient. Nowadays there are frequent blackouts, or electricity power cuts, and it is not unusual for some food shops to be empty. In recent months there have been shortages of items such as milk and toilet paper.



Nicolas Maduro, president of Venezuela

Many of the things Venezuela needs are imported from other countries. Businessmen usually have to pay for these items in American dollars. The government has set the exchange rate at 6.3 bolívares (the Venezuelan currency) to one American dollar. Yet it restricts the number of dollars that can be exchanged. This means there is now a 'black market' or an unofficial exchange rate. This is about 60 bolívares to one American dollar.

To buy the items that they sell in their shops many businessmen say they have to use the black market to get dollars. This, they explain, is why their shop prices are so high. However, Mr Maduro accuses them of exchanging money at the government rate and then calculating their prices at the black market rate.

Because of the high inflation many people in Venezuela are trying to exchange their money for dollars. They know their currency is now worth less and less, but dollars do not lose their value. Mr Maduro has threatened to arrest anyone selling dollars on the black market.

Mr Maduro insists that business people are causing the country's economic problems. Yet others say that Mr Maduro and Venezuela's last president are to blame. ■

DRONE STRIKE IN PAKISTAN

Hakimullah Mehsud was killed by an American drone attack on 1st November. The attack took place in Waziristan, in Pakistan. This is a mountainous area near the border with Afghanistan. Mehsud was the leader of the Pakistani Taliban.

Drones are unmanned small aircraft that are remotely controlled. In recent years the USA has launched many drone attacks on places in Pakistan that are close to its border with Afghanistan. The latest drone attack angered Nawaz Sharif, Pakistan's prime minister. This is because Mr Sharif had recently been trying to arrange peace talks with the Pakistani Taliban.

The USA has been fighting a war in Afghanistan since 2001. This was just after an Islamic militant group called al-Qaeda carried out attacks, using passenger aircraft, in New York City and Washington DC. At that time the Taliban controlled Afghanistan. It allowed al-Qaeda to operate its training camps in the country. The USA demanded that the Taliban hand over the al-Qaeda leaders. When the Taliban refused the USA invaded Afghanistan.

Soon after the invasion, the Taliban and al-Qaeda fighters withdrew

to the mountainous areas along the border with Pakistan. But they have not been defeated.

A few years later several other NATO (North Atlantic Treaty Organization) member countries agreed to send troops to Afghanistan. They decided to do this to help the USA and the new Afghan government in their fight against the Taliban and al-Qaeda.

The USA has complained that the government of Pakistan is not doing enough to stop the Taliban and al-Qaeda fighters on its side of the border. The leaders of Pakistan say this is not true. The part of Pakistan next to its border with Afghanistan is often called the 'tribal areas'. Militant groups in these areas, which agree with the Taliban and al-Qaeda, are known as the Pakistani Taliban.



American drone

The American, NATO and Afghan troops cannot cross the border into Pakistan. Instead the USA has been using drones to attack the Taliban commanders and their camps in the tribal areas. Many people in Pakistan are angry about these drone strikes. This is because some of them have killed innocent people.

Even though the Taliban from Afghanistan and the Pakistani Taliban have similar ideas they are different groups. The Pakistani Taliban wants to set up a separate state in Pakistan. Within this state everybody would have to follow very strict Islamic laws.

Mehsud is believed to have arranged many attacks in Afghanistan and Pakistan. He is also thought to be the person who organised a car bombing in New York City in 2010. After this the USA offered a reward of US\$5 million (£3 million) to anyone who helped to capture him.

Recently Mehsud announced that he would be willing to take part in peace talks. However, he said he would only do so if the American drone strikes stopped.

Seven days after the drone attack the Pakistani Taliban announced that Mullah Fazlullah was their new leader. Now, because of Mehsud's death, the commanders of the Pakistani Taliban are unlikely to hold peace talks with Mr Sharif's government. ■

NEW FOOD WRAPPING

Scientists working for two companies have developed a new technology. One of the companies is an American owned pharmaceutical, or drug making, business. The other is a plastics firm, based in the UK. The companies believe their new invention could have many uses.



Mouldy bread

The two companies have managed to produce a special plastic, which contains certain types of chemicals. They call their new plastic D2P. The chemicals can prevent the growth of bacteria and fungi. Therefore, foods such as bread and

NEWSCAST

LUCKY DUCK — A woman driving in the UK was concerned when her car hit a mallard duck. She stopped to see what had happened. There were many feathers in the road but the bird could not be seen. The woman thought that it must have managed to escape. Three days later she noticed that her dog was sniffing around her car. Opening the bonnet she was surprised to see the mallard trapped in part of the car engine. As it was still alive the woman immediately drove to a nearby vet. Yet the vets were unable to free the bird. They went across the road to a garage to ask for help. Mechanics at the garage then carefully removed some of the engine parts. They eventually managed to free the duck. The vets are now looking after the bird before it is released back into the wild.

cheese would last much longer if they were wrapped in bags made from D2P. What's more the chemicals in the plastic do not contaminate the food.

Bread, for example, normally starts to go mouldy and stale after about ten days. The spores of a type of fungus in the bread cause this to happen. A different fungus is found on cheese. The new plastic, the two companies say, will reduce both of these fungi. They also believe the D2P plastic will be able to control the fungus that causes fruit and vegetables to rot.

As well as fungus, D2P can stop certain bacteria from growing. These include *E. coli*, *Salmonella* and *Listeria*. It is dangerous to eat food that contains these bacteria. This is because they can cause serious food

poisoning. People with this type of illness have to be taken to hospital for special medical treatment.

Nowadays, in many countries, a lot of food is wasted. Millions of tonnes are thrown away every month. This is usually because the food has become rotten or mouldy. In some countries it's thought that about 40% of the bread people buy is never eaten.

The two companies say that they have been speaking with several food businesses and supermarkets about their new plastic. Packaging made from D2P could have their brand names and other information printed on it.

The companies believe that the new plastic might be useful in many other ways. For instance, hand rails, door handles and pipes could be made from it. These, the companies say, should help to reduce the spread of bacteria. If credit cards and plastic banknotes were made from D2P they too would be more hygienic.

The two companies are now organising more tests. They hope to put similar chemicals in man-made fibres that are used to make clothes and shoes. These would reduce the bacteria that can cause them to smell. ■

ROBOT SHOW

The International Robot Exhibition (iREX) was held in Tokyo, the capital of Japan, between 6th and 9th November. This event takes place every two years. The first iREX was in 1973, so this year's exhibition was its 20th anniversary.

iREX is the world's largest robotics trade show. Nowadays over 330 companies from Japan and other countries take part. They use

the show to demonstrate their latest robotic technologies.

The exhibition is made up of several zones. Some are for industrial robots. These are the types that are used in large factories. They can do tasks such as assembling cars and electronic devices. Another zone is for what are known as service robots. These are designed to help people.



'Muscle suit' demonstration

Japan is more advanced in building robots than any other country. Its population is now ageing quickly. This means in years to come there will be a greater number of elderly people. Today around 25% of the 128 million people who live in Japan are over 65 years of age.

Many of the service robots on display were made to help elderly people and those who look after, or care for, them. One new technology has been designed to help people lift heavy weights. Nicknamed a 'muscle suit' it looks like a type of backpack. The suit is powered by compressed air.

A carer or nurse wearing a muscle suit would easily be able to lift an elderly person out of bed or out of a bath. The suit can be used in places where there is a lot of water. This is because it does not use electricity.

Other robotic devices designed to help elderly people were a 'walking stick' and 'walking cart'. The walking stick is for people with bad

eyesight. It acts like a guide dog. There are not many of these dogs in Japan. Also, in most apartment blocks, there are rules that say pets are not allowed.

The walking stick is like a long upright handle attached to a small cart with wheels. The user holds the handle and follows the device as it moves forward. Sensors detect **hazards** such as walls or holes in the ground. The walking stick will then safely take the user around them.

The 'walking cart' helps people who cannot walk very well. It looks like a small shopping cart. It has a motor for going uphill and brakes for travelling back down. Both switch on and off automatically.

Another popular robot at the show was a 'nail painter'. This is a robotic arm that can put nail polish on fingernails. It is even able to do different coloured patterns. ■

HOT WATER MYSTERY EXPLAINED?

Over 2,500 years ago, Aristotle, a Greek **philosopher**, noticed something unusual about water. If bowls of hot and cold water are put outside in very cold, or subzero, weather, the bowl of hot water is the first to turn to ice. In recent years some researchers have tried to work out why this happens. Now two scientists from Singapore believe they know the answer.

Water is important. Yet most people do not realise that it is very unusual. Around 70% of the Earth is covered in seas, oceans and lakes. Up to 60% of an adult human body is water. Water is common, colourless, tasteless and odourless – or has no smell. It has three different forms: steam (a gas), water (a liquid) and ice (a solid).

Water is different to most other liquids. These liquids take up a smaller space when they freeze. They then expand, or take up a bigger area, when they melt. Water does the opposite. It expands when it turns to ice. So a glass bottle full of water will crack if it freezes. Water also boils at a much higher temperature than other liquids. Another unusual thing about water is that its solid form (ice) will float on its liquid form (water). This is because ice is less dense than water. Furthermore, water can dissolve more **substances** than any other liquid.

Hot water freezing faster than cold water is known as the 'Mpemba effect'. It is named after a student from Tanzania. In 1963 Erasto Mpemba was taking part in a cookery lesson at school. His class was making ice cream. Mpemba noticed that a hot ice cream mix froze more quickly than one that was cold.



A few days later a professor came to the school to give a physics lecture. After the lecture Mpemba asked the professor a question. Why does hot water freeze before cold water? The teachers and other students laughed. However, the professor did some tests and discovered it was true. He and Mpemba then published the results of the experiments they did together.

Water is made up of molecules. Each molecule has two hydrogen atoms and one larger oxygen atom. This is why it is called H₂O. A type of chemical bond connects these

atoms. When a hydrogen atom in one molecule gets close to an oxygen atom in another it connects with it. This bond, which is known as a hydrogen bond, is stronger than the chemical bonds.

The scientists claim that the Mpemba effect comes from how these hydrogen bonds react with the other bonds, in each water molecule. When heated, the hydrogen bonds cause the other bonds to become shorter and store energy. When placed in a freezer these 'shorter' bonds release their energy much faster than the same bonds in cold water. This, the scientists say, explains why hot water will turn to ice quicker than cold water.

One example of the Mpemba effect is to throw boiling water into the air in subzero weather. It quickly turns to snow or ice. This does not happen with cold water. The Mpemba effect also means that pouring hot water on a frozen path or car windscreen may be unwise. ■

M23 SURRENDER

On 5th November leaders of a militant rebel group in the eastern part of the Democratic Republic of Congo (DRC) made an announcement. They said they had decided to surrender. Their surrender means that many years of fighting in this part of Africa have finally ended.

The DRC is one of Africa's largest countries. It has huge mineral resources including gold and diamonds. Nearly all the people living in the country are very poor. This is because for most of the last 40 years there has been serious fighting in the DRC. It's estimated that over five million people died in the country during a five-year war that ended in

2003. The United Nations (UN) finally helped to end this war, which also involved several other countries.

Since 2003 the UN has kept thousands of peacekeeping soldiers in the DRC. Many were close to Goma. This is the largest city in the eastern part of the country. Most of the UN peacekeepers are from India, Pakistan and Bangladesh.



The rebels who have surrendered are known as the March 23 Movement, or M23. They used to be part of the DRC's army. Several years ago they mutinied. The M23 claimed that the DRC's army commanders had not kept to previous agreements such as a promise to pay them more money.

The rebels then began to attack towns and villages in the eastern part of the DRC. Hundreds of thousands of people were forced to leave their homes. About 18 months ago the M23 attacked Goma.

As the rebels approached, the DRC soldiers quickly withdrew. UN peacekeepers, close to Goma, did nothing to stop the rebel fighters. Some said this was the right thing to do. Yet others argued that the peacekeepers were supposed to be supporting the DRC's army. They said the UN force should have stopped the rebels from taking the city.

After capturing Goma the M23 leaders said that they planned to take over other parts of the DRC including

Kinshasa, the capital. The rebels were eventually persuaded to leave Goma after talks were held. Four African countries, Tanzania, Uganda, Rwanda and the DRC, attended the talks. The UN and the DRC have accused Uganda and Rwanda of helping the M23. The leaders of both countries say this is not true.

About one year ago the DRC made many changes to its army. Soldiers were paid on time and given better equipment. New commanders were appointed. The UN decided that its force would also change. A new commander from Brazil arrived. Instead of peacekeeping he was ordered to attack the M23. Around 3,000 specially trained soldiers from other African countries, such as South Africa and Tanzania, joined the UN force.

In recent months the DRC's army, with help from the UN, has recaptured most parts of the country held by the M23. Local people have welcomed the arrival of the DRC's army and UN force.

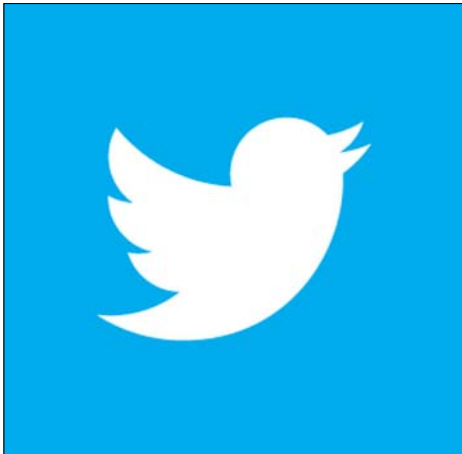
Just before the rebels surrendered they only occupied a small area of land close to the border with Rwanda. Two days after their surrender announcement the leaders of the M23 handed themselves over to officials in Uganda. Both the DRC and the UN accuse these men of war crimes. They insist that Uganda sends the M23 leaders back to the DRC so they can be put on trial. ■

TWITTER SHARE SALE

On 6th November, after several years of planning, the Twitter Company held or organised an initial public offering (IPO). An IPO is also called a stock market launch or flotation. This is when a company sells

its shares (also known as stocks) to the public for the first time.

Buying shares in a company is a way of owning part of it. However, if you buy some of the company's shares, it doesn't mean you get to say what happens in the business. Yet if the company does well and makes a lot of money, the value of its shares is likely to go up. You can then sell the shares to someone else, if you want to, and make a profit. The share price can also go down, especially if the company is doing badly.



Shares in companies cost very different amounts. Normally a company that organises an IPO will get help from one or several investment banks. These banks will try to work out what the whole company is worth. Once they have this figure they calculate what the initial price of its shares should be. Working out the value of a company such as Twitter is difficult. The investment banks studied the company and have tried to predict how much money it is likely to make in future.

Twitter is based in the USA. Four people set the company up eight years ago. Twitter is what's known as a microblogging service. Some people have described it as 'the SMS of the internet'. People who register can send or post short messages (known as 'tweets'). The

company says that at least 200 million people post around 500 million messages every day. Each message cannot be longer than 140 characters. Those who have registered can post messages. Other registered and non-registered people can read them.

Companies sell shares to raise money. This money is normally used to grow the business, pay off debts or take over other companies. Share prices are listed on a stock market, or stock exchange. Other companies and individuals can buy and sell (or trade) shares listed on stock markets. These share prices often change daily. This can depend on how many people want to buy or sell them. The bosses of Twitter decided to list their company's shares on the New York Stock Exchange (NYSE).

The investment banks decided to set the price of the IPO at US\$26 (£16.25) per share. Around 10% of the company's shares were sold. The others belong to the owners, employees and business people who have already invested in the company. The IPO was for 70 million shares. So the share sale raised US\$1.82 billion (£1.14 billion).

Twitter was an unusual stock market flotation. This is because most companies do not hold an IPO until they make money, or a profit. So far Twitter has never done this. During July, August and September the company's sales were US\$168.6 million (£105 million). Yet in the same three months it lost US\$64.6 million (£40.4 million). Many people believe that Twitter is unlikely to make a profit until at least 2015. So those who bought the shares believe the company will make large profits in future.

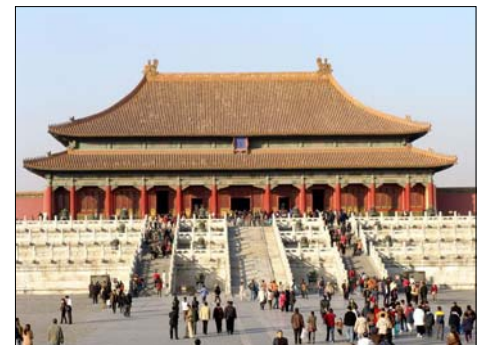
Twitter makes nearly all of its money from advertising. To make

a profit Twitter will need to greatly increase its sales. This means it will probably have to increase the advertising on its website and within the messages people post. However, some worry that if the company's tweets include too much advertising people might decide to stop using the service.

On the day of the IPO Twitter's share price went up to around US\$45 (£28). At this price the whole company is worth about US\$27 billion (£16.9 billion). ■

FORBIDDEN CITY'S STONE BLOCKS

A team of three people have produced a study about the Forbidden City, in China. Many of the City's wooden buildings were constructed on foundations made from huge blocks of stone. Their study shows how these large, heavy stones might have been transported.



One of the Forbidden City's buildings

The Forbidden City is in the centre of Beijing, China's capital. It was constructed between 1406 and 1420. The City covers a large area and includes almost 1,000 buildings. It's thought that around one million workers were needed to construct it.

The Forbidden City was the home of China's rulers. Chinese emperors, from the Ming Dynasty to the end of the Qing Dynasty, lived in the palace. This is a period of about 500

years. Today the Forbidden City is a museum.

One of the team who wrote the report is a professor of engineering at an American university. On a visit to the Forbidden City he was interested in the stone foundations. Many of these were made from huge blocks of stone. It's known that these stone blocks came from a quarry that is around 70 kilometres (43 miles) away. The professor wondered how the stones had been taken from the quarry to the Forbidden City.

Nobody knows who invented the wheel. However, it's known that wheels were being used in China at least 3,000 years ago. Therefore many people presume that the stone blocks were put on wooden carts that were then pulled to Beijing. The professor was not so sure. Some of the blocks, he thought, must have been too heavy to be transported on wooden carts.

Another member of the team was a Chinese engineer. He studied a number of ancient Chinese documents about the Forbidden City. He wanted to find out if anything had been written down about the construction of the palace. He found some writings that said a carved stone block, weighing 120 tonnes, had been taken to the Forbidden City in 1557. The text described how the block was used to repair one of the larger buildings. It also mentioned that the stone arrived on an 'ice path'.

The team now believe that an ice road was made from the quarry to the city. Beijing gets very cold in the winter months, so this would have been when the stone was transported.

The team think that the workers put the stone block on large wooden sledges. The workers probably dug

wells along the length of the path-way. During very cold weather, water from these wells was poured on the road and left to freeze. Extra water was then put on the frozen ice. This would have made it even easier to pull the sledges.

The engineers calculated that a group of 50 men would have been needed to drag the 120 tonne block along the ice road. It would have taken them about four weeks to pull it to the palace. The engineers believe the heavy stone blocks used to build the Forbidden City were probably transported in a similar way. ■

INDIA'S MARS MISSION

On 5th November a rocket lifted off from the island of Sriharikota, in southern India. The space rocket launch was part of India's Mars Orbiter Mission (MOM). This is an unmanned spacecraft, or space probe.

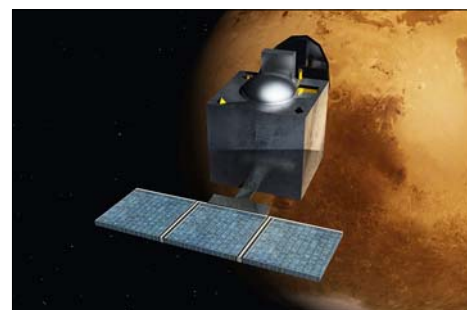
The Indian Space Research Organisation (ISRO) has organised the space mission. It is also known as *Mangalyaan*. This means 'Mars craft' in the Hindi language. The probe is expected to reach Mars in September next year after travelling 772 million kilometres (480 million miles). The spacecraft will then start to orbit the planet.

Mangalyaan will study Mars' atmosphere. It will also take pictures of the planet as well as its two moons, Phobos and Deimos. The probe carries specially designed equipment. This can map Mars' surface and show where certain minerals may be found.

In the past there have been 40 different space missions to Mars. Of these 23, or more than half, have failed. If *Mangalyaan* is successful, the ISRO will be the fourth space

organisation, or space agency, to get to Mars. So far only NASA, from the USA, the Russian **Federal** Space Agency and the ESA, from the European Union (EU), have succeeded. India would therefore be the first Asian country to reach the Red Planet.

Today Asian countries are becoming much more interested in space. These include China, India, Japan and South Korea. Some have described this as the 'Asian Space Race'. The name comes from the old **rivalry** between the USA and the Russian-led Soviet Union.



Artist's impression of the Mars Orbiter Mission

The 1950s and 1960s were the height of what became known as the 'Cold War'. Then, the USA, together with its allies in Western Europe, and the Soviet Union were enemies. Both Russia and the USA wanted to prove to the rest of the world that they had the best space technology. This became known as the 'Space Race'. The race ended when an American astronaut, Neil Armstrong, was the first person to walk on the Moon in 1969.

Of the four Asian countries China is the only one to have sent astronauts into space. Currently it is building a space station. All except South Korea have launched unmanned spacecraft that have travelled to the Moon. South Korea has plans to do this within the next few years.

ISRO officials say that the cost of the *Mangalyaan* space mission is about US\$73 million (£45.6

million). This is very inexpensive for this type of mission. What's more the spacecraft only took 15 months to build. Some people suspect that the MOM was arranged quickly because India wanted to 'get to Mars' before China. Japan and China have sent missions to Mars in the past. Both failed. Two years ago China's Mars space probe was to be carried into space on a Russian rocket. Yet the rocket malfunctioned, or went wrong, soon after its launch.

Over 1.2 billion people live in India. Around 700 million of these are said to be very poor. Many young children suffer from illnesses because they do not get enough to eat. Some people in India have therefore said it is wrong for their country to spend so much on space missions. This money, they argue, should be used to help poorer people.

Others disagree. They say the ISRO has launched many useful Indian satellites. These are used for things such as communications and weather forecasting. In future, if it is successful, other countries will pay the ISRO large amounts of money to take their satellites into space. ■

NEW YORK CITY'S NEW MAYOR

An election for the new mayor of New York City was held on 5th November. Bill de Blasio won. He will take over from Michael Bloomberg who has been the city's mayor for the last 12 years.

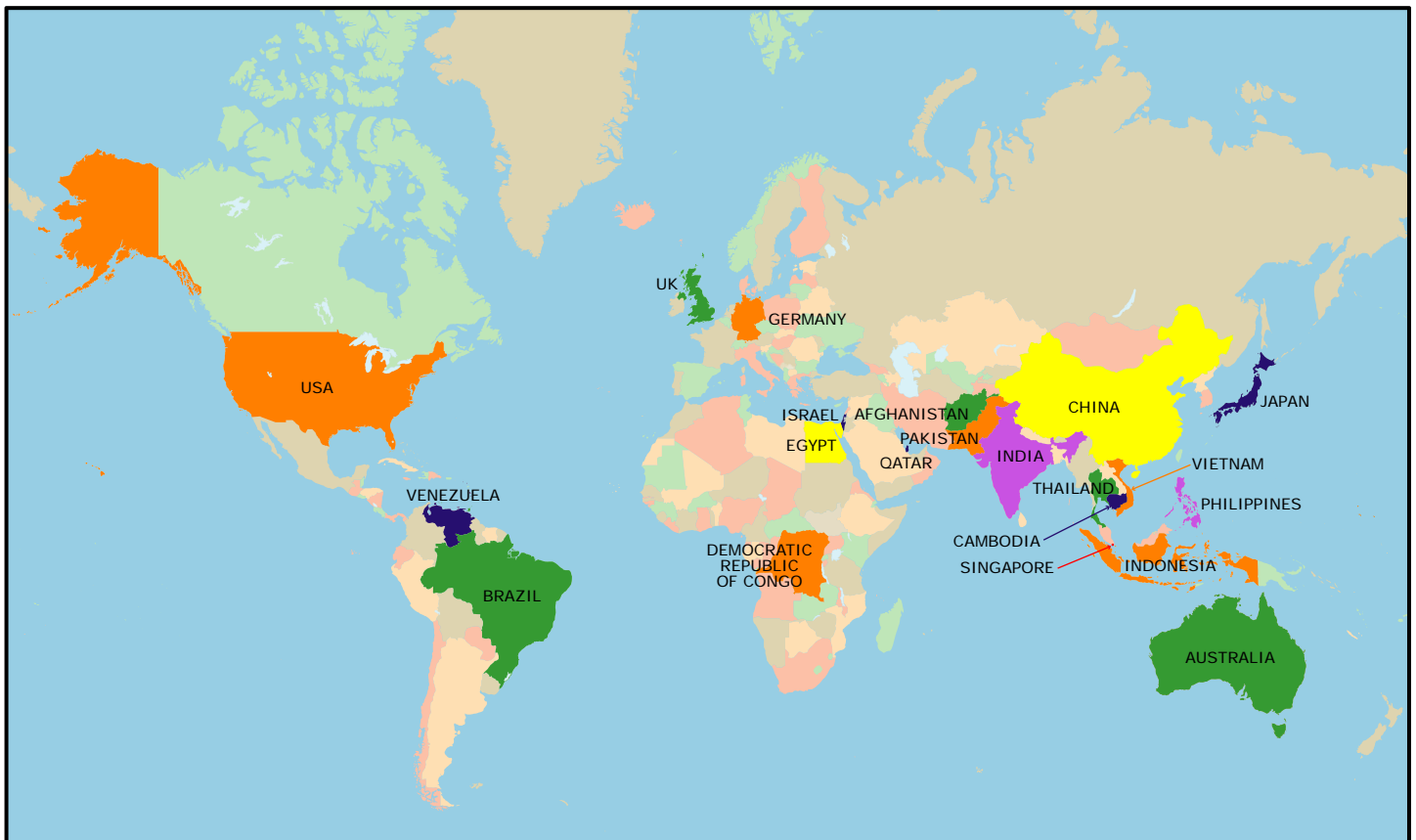
The first buildings or settlement of what was to become New York were put up in the 1620s. At that time the Dutch controlled the area. Then it was called New Amsterdam, after the capital city of the Netherlands.

By 1664 it had been taken over by the English. They renamed it New York after the Duke of York. Later, as James the Second, he became the King of England.

Today New York is the largest city in the USA. It is home to about 8.4 million people. Nicknamed the 'Big Apple' it is one of the most famous cities in the world. Each year at least 50 million people, from other parts of the USA and different countries, visit the city.

The first mayor of New York was appointed in 1665. Nearly 170 years later, in 1834, the first election was held to choose the city's mayor.

Mr Bloomberg was first elected as New York's mayor in 2001. These mayoral elections are held every four years. Mr Bloomberg is a very wealthy man. He is the founder of a company called Bloomberg. This company provides special computer



This map shows countries to which news stories refer in this issue. Visit www.newsademic.com for more detailed world maps.

terminals to banks and other finance businesses. These computers display important financial information.

Mr Bloomberg has been elected as New York City's mayor three times. The last election was in 2009. The rules used to say that a person could be mayor for a maximum of three four-year terms. However, this has recently been changed to two terms. As Mr Bloomberg had been the mayor for three terms he did not take part in the recent election.



Bill de Blasio, New York City's new mayor

During his time as mayor Mr Bloomberg has tried to get more 'tech' companies to set up in the city. He has changed how schools are run and introduced a new bicycle-sharing rental scheme. Since Mr Bloomberg has been mayor the amount of crime in the city has continued to fall. Perhaps he is best known for trying to make New Yorkers, or people who live in the city, healthier. Smoking is now banned in most places. Mr Bloomberg also set restrictions on the sale of 'super-sized' sugary drinks from takeaway restaurants, cinemas and sports stadiums.

There are two main political parties in the USA, the Republicans and the Democrats. When he first became mayor Mr Bloomberg was the Republican candidate. Yet in 2007 he announced that he was now 'independent'. This means he was no longer **associated** with any political party.

Mr de Blasio was the Democrat candidate in the election. The

election result means that New York City will have a Democrat mayor for the first time in 20 years.

Mr de Blasio won by a landslide. When a person wins an election by a large number of votes it is often called a 'landslide'. Nearly 74% of the people who took part in the election voted for him. The Republican candidate, Joe Lhota, got 25% of the votes.

Mr de Blasio will officially take over from Mr Bloomberg on 1st January 2014. Before the election he said that wealthier New Yorkers should pay higher taxes. He also wants to set up 'all-day' kindergartens for very young children. ■

WALLACE100

On 7th November a number of talks, exhibitions and lectures took place in several different countries. All were part of an event called Wallace100. They were organised to **commemorate** the work of Alfred Russel Wallace (1823 – 1913). He died on 7th November, 100 years ago.

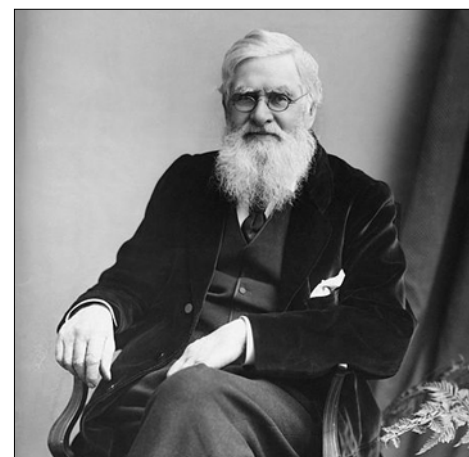
Most people have heard of Charles Darwin (1809 – 1882) and his famous theory of evolution. Darwin's theory is that species change and adapt to the places and surroundings in which they live. He said they did this by a process he called natural selection, and that only the fittest survive.

However, few people know anything about Wallace. Like Darwin he was a British scientist. Wallace came up with a similar theory of evolution by natural selection around the same time as, if not before, Darwin.

One of Wallace's main interests was insects, especially beetles and butterflies. Between 1848 and 1853 Wallace lived in Brazil. There he

collected thousands of specimens of insects and birds. He made a living by sending these back to the UK where they were sold. In 1854 Wallace went to Singapore and then spent eight years in different parts of South East Asia, such as Malaysia and Indonesia. There he also collected specimens.

When Wallace was in South East Asia he and Darwin wrote letters to each other. It was not unusual for Darwin to ask Wallace to send him certain specimens. While studying the wildlife in this part of the world Wallace began forming his own ideas about evolution. He wrote his ideas and thoughts down in a number of long essays.



Alfred Russel Wallace

In 1858 Wallace sent one of his essays about evolution to Darwin. Darwin was surprised. This was because Wallace's ideas about evolution were almost exactly the same as his own. Two weeks later Darwin presented Wallace's essay with his own writings to a scientific society in the UK. The ideas of Wallace and Darwin were then published by the society.

Darwin's famous book *On the Origin of Species* was printed one year later, in 1859. Most people think this book was the first text about evolution. Yet this is not true.

NewsCAST

UNFAIR CONTEST — Have you ever played rock-paper-scissors? Scientists in Japan have made a robot that wins every time. In the game two people quickly hold out one of their hands in one of three different shapes. They do this at exactly the same time. A fist is a rock, a flat hand paper, and two fingers scissors. Paper beats rock: rock beats scissors: scissors beats paper. The reason the robot is so successful is that it cheats. Rather than guessing what a person will do it recognises the shape their hand begins to form. It does this in one thousandth of a second. The robot then selects whichever one beats the person's choice. As it is so quick it looks as if the robot is making its selection at the same time. The robot is called JanKen, which is the Japanese name for the game.

The first was Wallace's essay and Darwin's writings that were published by the scientific society.

Wallace returned to the UK in 1862. By this time Darwin had become well known. Darwin always accepted that Wallace's ideas were very similar to his own. Yet, because of the publication of *On the Origin of Species*, Darwin became famous while few people knew of Wallace's ideas. Wallace did not seem to mind. Later he wrote his own book about evolution. This even included the word 'Darwinism' in the title.

There are many monuments to Darwin. Yet until 7th November there was none of Wallace. As part of Wallace100 the first ever statue of the scientist was **unveiled** at the Natural History Museum, in London, the capital of the UK. Other Wallace100

events were held in Indonesia, the USA, Taiwan and Singapore.

Recently a new species, or type, of wasp was discovered in Indonesia. It is only one millimetre (0.04 inches) long. The tiny wasp lays its eggs inside spiders and other insects. In honour of Wallace the new wasp has been given the name *Wallaceaphytis*. ■

WAS ARAFAT POISONED?

On 6th November a group of scientists from Switzerland published a report about Yassar Arafat. It said tests done on his body suggest that he might have been poisoned. Suha Arafat, Arafat's widow, is a citizen of France. She claims the report shows that her husband was **assassinated**.

For many years Arafat (1929 – 2004) was the leader of the Palestine Liberation Organization (PLO). The PLO was set up to create an independent Palestinian state, or nation. Many Palestinians believe that Arafat was a freedom fighter. Yet most Israelis say he was a terrorist. Arafat was also accused of keeping money that was given by other countries to help Palestinian people.

The problems between the Palestinians and Israelis first began over 60 years ago. In 1948 the USA and the United Nations (UN) helped to set up a new Jewish state, or country, in an area of the Middle East known as Palestine. Called Israel, many Jewish people from Europe and other parts of the world went to live in the new country.

At that time many Palestinians, who lived in the area that became Israel, were forced to leave their land and homes. Most had to move to refugee camps in nearby countries.

After the set up of Israel, Jewish people had their own country. Yet many Palestinians were left without one.

Nearby Arab countries were angry about what had happened. They supported Arafat and the PLO. The set up of a new Jewish state led to several wars between Israel and the surrounding Arab nations. Israel, supported by the USA, won them easily. It captured the Golan Heights from Syria and the West Bank, including the eastern half of Jerusalem, from Jordan. Today most Palestinians live in the West Bank and Gaza Strip. Parts of the West Bank are still occupied by Israel.



Yitzhak Rabin, Bill Clinton (president of the USA) and Yassar Arafat at the signing of the Oslo Accords in Washington DC, in 1994

In 1993 Arafat agreed to take part in peace talks with Israeli leaders. These were held in Oslo, the capital of Norway. A peace agreement, known as the Oslo Accords, was signed the following year. As part of the agreement the Palestinian Authority (PA) was set up. This included the Gaza Strip and the West Bank. Even though the PA was not a country, its formation allowed the Palestinians to govern themselves.

Arafat and Yitzhak Rabin were awarded the Nobel Peace Prize in 1994. Then Rabin was the prime minister of Israel. Yet some militant Palestinians were angry about what Arafat had done. They believed it was wrong to take part in any peace talks with Israel.

Arafat lived in a compound in Ramallah, a city in the West Bank. In 2004 he suddenly became ill. He was flown to France for special medical treatment. He died a few days later, aged 75. It was announced that he had a heart problem. However, some people did not believe this. They suspected that he had been poisoned.



Last year Arafat's body was taken out of his tomb in Ramallah for a short time. Some samples were taken. Groups of scientists from France, Russia and Switzerland were given the samples to test for any poison. The French and Russian scientists have yet to announce their results.

The Swiss scientists said that the samples contained a lot of polonium. This is a radioactive substance. If there are high levels of polonium inside the body it can quickly kill a person. Polonium is hard to detect. It could have been put in Arafat's food without him noticing. The Swiss scientists are not sure that the former PLO leader was poisoned. Yet the amount of polonium in the samples, they say, was too much to have been absorbed accidentally.

After the scientists' report many Palestinians accused Israel of poisoning Arafat. Israel denies that it had anything to do with his death. Some people say that if Arafat was poisoned it's more likely that he was killed by a group of Palestinians who disagreed with him. ■

GIANT PLATYPUS

Researchers in Australia have been studying a fossilised tooth. It is believed to be between five and 15 million years old. The researchers say it came from a giant platypus. Before the discovery of the tooth no one knew that this type of creature had ever existed.

The researchers believe that the ancient giant platypus was a meat-eater, or carnivore. It probably ate frogs, fish, turtles, crabs, and shrimps. It was about one metre (three feet) in length. This means it was twice as long as the modern day platypus.

The platypus is only found in eastern parts of Australia and the island of Tasmania. It lives along river valleys and is a very good swimmer. The platypus is an unusual creature. Its body and tail are beaver-like and it is covered in waterproof fur. Yet it has a bill like a duck and webbed feet. The animal spends much of the time in water but makes its nest in underground burrows. These are dug in the riverbank above the level of the water. It eats worms, insects and freshwater shrimps. The platypus name comes from an Ancient Greek word that means 'flat-footed'.

The platypus is a mammal, but it is different from almost all other mammals. Mammals give birth to their young. However, the platypus doesn't do this. Its young hatch from eggs that have been laid by the females.

Only one other species of mammal does a similar thing. These are types of anteaters called echidnas. They too come from Australia. Mammals that lay eggs are called monotremes.

Another unusual thing about the platypus is that it is one of the few mammals that produce venom, or a type of poison. Adult males have a sharp 'spur' on the ankles of their back legs. These spurs produce a type of venom. This venom is not life threatening to humans.

The fossilised tooth was found in a desert area. Millions of years ago this part of Australia was very different. Then it had much more rain and there were rivers, lakes and forests.

The giant platypus has been given the name *Obdurodon tharalkooschild*. In Greek, obdurodon means 'lasting tooth'. Tharalkooschild comes from an indigenous, or native, Australian story about the creation of the world. In it a rat and a duck mate with each other and a platypus is born.



Platypus

Giant mammals were once common in Australia. Together they are known as megafauna. Many fossils of these giant creatures have been discovered in the country. They often look like very large versions of animals that exist today. For example, fossils have been found of giant wombats, giant kangaroos, which were three metres (ten feet) tall, as well as giant koalas.

Nobody knows why all the Australian megafauna died out. One idea is that early humans hunted these big animals to **extinction**. Yet many scientists think the more likely reason was either a sudden or gradual change in the climate. ■

STOLEN ART DISCOVERED IN GERMANY

On 3rd November a magazine in Germany reported that about 1,500 'missing' paintings had been discovered. They were found in a flat in the German city of Munich. It's believed that the pictures were seized or stolen just before or during the Second World War (1939 – 1945).



'Lady with an Ermine' by Leonardo da Vinci

Adolf Hitler became the German leader in 1933. Several years later he decided that all modern art was 'un-German'. This included modern music and films. The Nazis believed that modern art, such as impressionist and cubist paintings, was **degenerate**.

Before the war started a group of art experts were ordered to take all the modern art pictures from German

art galleries. They were also told to force owners of modern paintings, especially Jewish people, to sell them for very low prices. The art experts were supposed to sell these paintings in other countries. The money from the sales would then be used to build a classical art museum in Hitler's home town of Linz, in Austria. In 1938 a law was passed that made it legal to take these paintings from German art galleries.

During the war German forces occupied many European countries. A group of Nazi officials then stole, or looted, many paintings from these countries. One of these pictures was Leonardo da Vinci's *Lady with an Ermine*. It was looted from Poland. (An ermine is also called a stoat. In winter the animal's brown fur turns white.)

In 1943 the USA and the UK set up the Monuments, Fine Arts, and Archives program (MFAA). The people who worked for it were known as 'Monuments Men'. Their job was to protect historic buildings in Europe from war damage. They were also told to find paintings looted by the Nazis and to try to return them to their owners. Many well-known paintings were discovered hidden in a salt mine in Austria soon after the war ended. The *Lady with an Ermine* picture was found in a senior Nazi official's home when he was arrested in 1945. The picture was then returned to Poland.

German officials admitted that they had found the paintings in the flat in Munich several years ago. The flat, they said, was very untidy. The pictures had been hidden behind tins of old food. Most are thought to have come from German art galleries. Yet it's known that some were looted from other countries. They include paintings by Matisse, Munch, Toulouse-Lautrec, Picasso, and Canaletto.

The total value of the paintings is thought to be about €1 billion (£840 million). Many art experts were surprised by the discovery. They thought that these paintings had been destroyed during the war.

A man called Cornelius Gurlitt owns the flat. He is 80 years old. His father, Hildebrand Gurlitt, was an art collector, who died in 1956. He was a member of the group that took the modern works of art from German galleries. So, rather than selling all these paintings in other countries, Mr Gurlitt's father decided to keep some of them.

The German police became suspicious of Mr Gurlitt when he was searched on a train. He was travelling to Germany from Switzerland. Mr Gurlitt was carrying a large amount of money, yet records showed that he had never worked. It seems that Mr Gurlitt was living in the flat as a **recluse**. He occasionally sold one of the paintings if he needed money.

German officials are now trying to find out who owned the paintings and if any of their relatives are still alive. However, Mr Gurlitt might be able to keep some of the pictures taken from German art galleries. This is because, at that time, they may not have been taken unlawfully. ■

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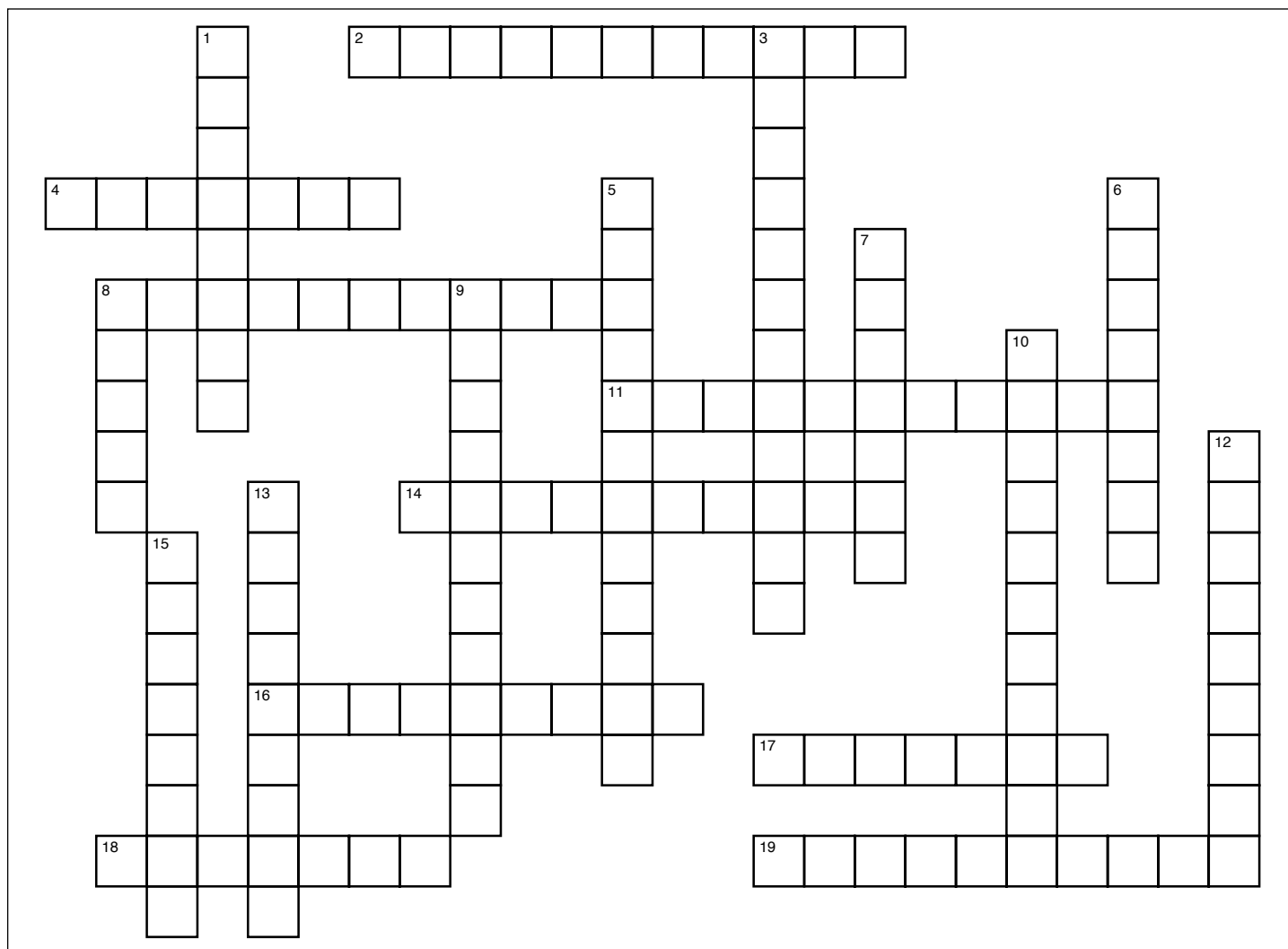
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ISSUE 210

GLOSSARY PUZZLE

INSTRUCTIONS: ① Complete the crossword. The answers are highlighted in orange in the news stories. There are 25 words highlighted and you need 20 of them to complete the crossword. ② Once you have solved the crossword go to the word search on the next page ➡



Across

- 2 Verb** To remember or celebrate a past event or person
4 Noun Competition with others
8 Noun A person who studies ideas about the meaning of things such as life, knowledge, logic and beliefs
11 Noun (Plural) The parts of a building below ground that support it
14 Verb Connected with someone or something
16 Noun A general rise in prices and fall in the value of money
17 Adjective Describes something that is connected to the central government
18 Noun A person who rarely goes out or speaks to anybody else
19 Adjective Describes something that has degraded or got worse and is unlike normal people's behaviour or anything they create

Down

- 1 Noun** An event or disaster that causes great harm and misery
3 Verb Deliberately killed an important person, especially for political reasons
5 Noun The removal of harmful substances from something
6 Adjective Describing a person's own country
7 Noun (Plural) Things that are dangerous or can cause accidents
8 Noun A plan, product or system used to test if something will work
9 Noun (Plural) People travelling on foot
10 Verb To make impure or dirty
12 Verb To intentionally become involved in a difficult situation to stop it from getting worse
13 Noun (Plural) Screens that receive information from computers in a different place
15 Verb Refused to obey orders from someone in command

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GLOSSARY PUZZLE *CONTINUED*

D A P H I L O S O P H E R C T C R F
 E E Q W T Y S G B X O B F M K U U O
 T H T G E T A R O M E M M O C H C U
 A K O A I M J Y P L P W P F C E S N
 I Z D R N Z U D E G E N E R A T E D
 C I E D X I R Y Y R L A V I R J A A
 O Q I C D B S X H T T L O G C B N T
 S D N X C I T S E M O D A F S C Q I
 S W I Q W I G R A H K K E R N O T O
 A P T N I D M Y C S X I B I E N Q N
 H B U E T I Z Q T W S S Q J Y D I S
 A R M H N E T A N I M A T N O C E A
 L S H A Z A R D S S M B O S R R U F
 R T L G Q D H V S Q E A K L A G B P
 D S N A I R T S E D E P L V O H G I
 F A Q F N P G H I N D R M A I F H L
 J P C I A E S U L C E R O L C S K O
 N O I T A C I F I R U P W K B G L T

INSTRUCTIONS: ③ Find 19 of the 20 crossword answers in the word search. Words can go vertically, horizontally, diagonally and back to front. ④ After finding the 19 words write down the 20th (or missing) word under the puzzle.

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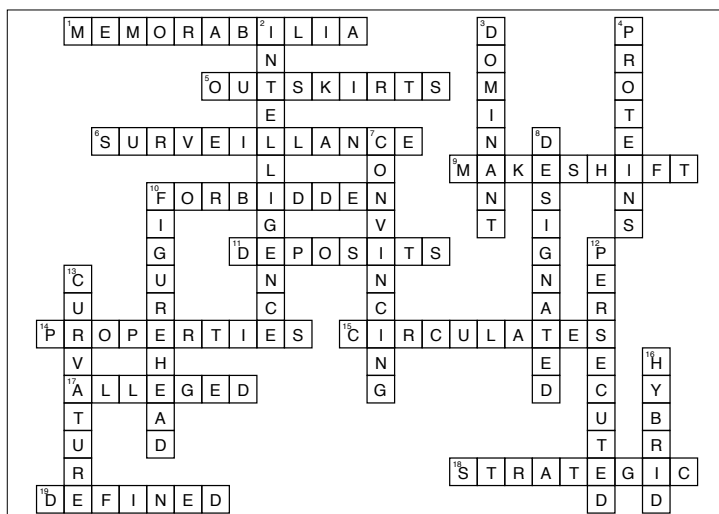


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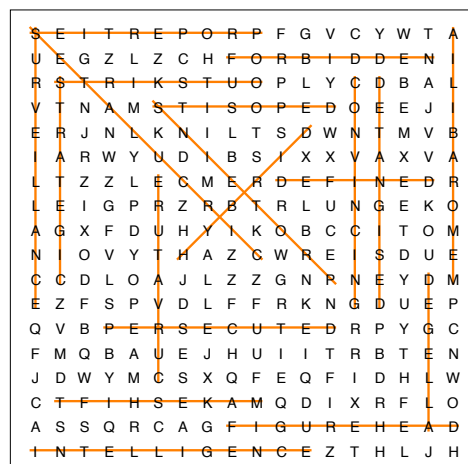
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MISSING WORD ANSWER =



ISSUE 209 ANSWERS



D O M I N A N T